UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

W. Hedberg
M/053/002

MAY 10 1995

Ref: 8HWM-ER

SENT VIA FAX AND CERTIFIED MAIL RETURN RECEIPT REQUESTED

RECEIVED
MAY 12 1995
DIV. OF OIL, GAS & MINING

Mr. Jerry Glazier
President
5M, Incorporated
P.O. Box 752
279 West State Street
Hurricane, UT 84737

Dear Mr. Glazier:

As you are aware from previous correspondence, meetings, and your review of the Administrative Record for the Leeds Silver Reclamation Site (Site), the Environmental Protection Agency (EPA) has documented releases of hazardous substances from the Site and threats or potential threats to public health, welfare, and the environment posed by those releases. EPA in partnership with the State of Utah and other Federal agencies developed a cleanup plan to address the releases and threats at the Site. You declined EPA's offer that 5M, Inc., conduct the necessary removal action pursuant to an Administrative Order on Consent.

EPA has repeatedly requested that you grant access to 5M, Inc.'s, property at the Site for the purpose of conducting the removal action. 5M, Inc., has effectively denied access to EPA. Therefore, EPA has issued the enclosed Administrative Order CERCLA-VIII-95-14 directing that you comply with EPA's request for access to conduct the removal action. Paragraph 47 of the Order provides an opportunity for you to request a conference to discuss the Order with EPA prior to the effective date. If you wish to request a conference, please contact Matthew D. Cohn, Associate Regional Counsel, at (303) 294-7183.

Sincerely,

Sharon L Kercher

Sharon L. Kercher, Chief
Removal Enforcement Section

Enclosure

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

IN THE MATTER OF:	)	
	)	ADMINISTRATIVE ORDER
Leeds Silver Reclamation Site	)	DIRECTING COMPLIANCE WITH
Washington County, Utah	)	REQUEST FOR ACCESS TO
	)	CONDUCT REMOVAL ACTION
5M, Incorporated	)	
RESPONDENT.	)	EPA DOCKET NO.
	)	CERCLA-VIII-95-14
	)	

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I. ADMINISTRATIVE ORDER FOR ACCESS

This Administrative Order for Access is issued to 5M, Incorporated, a Utah Corporation, by the United States Environmental Protection Agency, Region VIII ("EPA") pursuant to the authority vested in the President of the United States by section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9604(e), and delegated to the Administrator of EPA on January 23, 1987, by Executive Order No. 12580, 52 Fed. Reg. 1923 (1987), and further delegated to the Director, Hazardous Waste Management Division, EPA Region VIII by Delegation No. 14-6 (R8.1200 December 1994).

II. FINDINGS OF FACT

Based upon information available on the date of issuance of this Administrative Order, EPA makes the following Findings of Fact:

1. Respondent 5M, Incorporated, (5M, Inc. or 5M) owns real property in Sections 1 and 12, Township 41 South, Range 14 West, Salt Lake Base Line and Meridian in Washington County, Utah, (hereinafter the "Leeds Silver Reclamation Site" or "Site"). Records with the Washington County Assessor's Office and the Washington County Clerk's Office indicate that the Respondent has title to the property through a quit claim deed from Tech-Sym Corporation.

2. Leeds, UT, (population 254) is approximately one mile southeast of the Site along the east side of Interstate 15. The

town of Silver Reef is located within one mile north of the Site, and the community of St. George is a few miles south. A residential housing development is located south of the Site, with the nearest house about one-half mile from the Site.

3. Prior to 1977, mining and milling operations were conducted at the Site. The Site is currently an inoperative ore processing facility which formerly utilized an acid heap leach process for the extraction of copper and silver. The main feature of the Site is a centrally located pile of crushed ore, underlain by an asphalt pad. This pad covers an area of approximately 3.8 acres and, in conjunction with the ore, is referred to as a heap leach pad. The asphalt leach pad and ponds were constructed around 1978 and the facility was in operation through 1983. Copper and silver sandstone ores were processed via acid heap leach operations. The metal-bearing (pregnant) solution flowed downslope along the pad and ultimately drained into the pregnant pond. The solution was pumped from the pond, and copper, silver, and other metals were recovered. Below the pregnant pond, is an overflow pond.

4. South of the overflow pond, is a wetland basin that contains runoff from the Site if the ponds overflow.

5. North of the leach pad is a 1.3 acre ore stockpile. South of this stockpile, about half the distance to the leach pad, are three 72-gallon electrical transformers. Three electrical transformers are also present in the mill area which covers approximately 0.5 acres in the southwest corner of the

Site. A warehouse and test area, associated with on-site operations, is located approximately 1000 feet northeast of the processing area. At the time of EPA's investigation, this warehouse also contained several transformers.

Release or Potential Release of Hazardous Substances

On-Site sources of hazardous substances are the leach pile, soils contaminated by the transformers, and the pregnant and overflow ponds. Samples of soils, surface waters, and subsurface waters were collected and analyzed. Sample results indicate the relase or potential release of hazardous substances as defined in CERCLA 101(14), 42 U.S.C. §9601.

6. The heap leach pile contains copper at 2080 mg/kg, selenium at 7.1 mg/kg, silver at 61 mg/kg, vanadium at 202 mg/kg, zinc at 615 mg/kg, and mercury at 97.3 mg/kg.

7. Sample analysis results from the collection pond and overflow pond showed the presence of hazardous substances up to the following concentrations in the leachate: barium at 47 ug/L; cadmium at 170 ug/L; manganese at 260,000 ug/L; copper at 410,000 ug/L; mercury at 520 ug/L; silver at 2,600 ug/L; and zinc at 55,000 ug/L.

8. Mercury concentrations ranged from 0.15 to 2.1 mg/kg in the sediment of the two collection ponds and increased to 84 and 140 mg/kg, respectively, in the Leeds Creek diversion sediment and wetland sediment.

9. The wetland is already serving as a sink to the on-site source material, and the small reservoirs or wetland that receive

surface water from the Site are becoming contaminated with mercury up to 500 mg/kg, copper at 850 mg/kg, zinc at 140 mg/kg, selenium at 6.6 mg/kg, arsenic at 34 mg/kg, and barium at 250 mg/kg. Quail Creek Reservoir lies only a short distance downstream. This reservoir may become a sink for hazardous substances from the Site if the other reservoirs or wetland do not stop the runoff before it reaches Quail Creek Reservoir during Spring storm events.

10. X-ray fluorescence (XRF) spectrophotometer screening and soil/sediment sampling results show that: 1) high levels of metal contamination are in the sediment in the overflow pond with concentrations of barium at 114 mg/kg, copper 1,700 mg/kg, mercury at 2.1 mg/kg, selenium at 5 mg/kg, vanadium at 130 mg/kg and zinc at 150 mg/kg; 2) the wetland serves as a sink for hazardous substances as evidenced by the sample results discussed in paragraph 9; 3) there is a high concentration (10 mg/kg) of mercury in the irrigation pond sediment relative to other ponds, which indicates that off-site migration is also occurring; 4) the pregnant and overflow ponds are characterized by low pH (2.2 and 3.4 pH units, respectively), and high conductivity (203.4 and 29.2 ppt, respectively) [conductivity and salinity data, in conjunction with the abundant precipitates, indicate high concentrations of dissolved materials are present in the water column]; and, 5) the perched pond and Leeds Creek diversion exhibit elevated conductivity and salinity which suggests that some of the process waste may have been received by these areas.

11. During late winter/early spring of 1993, the Leeds area experienced heavy rains, creating flash floods in certain areas. Such seasonal storm events are not uncommon and could result in a catastrophic release of hazardous substances from the Site.

12. At the time of EPA's investigations at the Site, PCBs were present in the transformers on-site. Laboratory analysis of a sample of transformer oil confirmed the presence of chlorinated compounds in the form of 230 mg/kg of Aroclor 1260.

13. The 5-gallon containers buried on-site contain substances which have a flash point of 40.5°C/105°F. These substances are ignitable wastes/flammable materials and are therefore hazardous wastes as defined in 40 CFR Part 261.21.

14. A rusted steel tank contains a material with a pH of 0, indicating a very corrosive material.

Endangerment

15. Old roads and footpaths crisscross the Site, and signs of public ingress/egress are evident. Motorcycle riding, horseback riding, four-wheel driving, and hiking may occur on and near the Site on a daily basis. There is no fence or other structure that inhibits any type of public access to the Site. A significant potential for continued human/animal exposure to hazardous substances exists due to actual or potential: 1) direct access and trespassing on the areas of the Site where hazardous substances exist; 2) airborne migration of hazardous substances from the Site to nearby housing developments; 3) migration of hazardous substances from the Site into the regional

groundwater; and, 4) migration of hazardous substances off-site to ponds, wetlands, wells, and other surface water which is used for domestic purposes, lawn and garden irrigation, and livestock water.

16. The most significant run-off of hazardous substances comes from the leach pad and is ponded in the acidic water pond and overflow pond at the south end of the Site. The extremely acidic water (lowest recorded pH is 2.2) may pose an acute health risk to children or other individuals trespassing on the Site. Water with hydrogen ion concentrations this high may cause skin irritation or burns and may cause persistent or permanent damage to the eyes if contact were to occur. Additionally, the acidic pH in the pond is likely to solubilize heavy metals in the sediment and carry them to the groundwater. Thus the pond serves as a recharge area for heavy metals into the groundwater.

17. Sampling results show that both sediment and water in the Site ponds are acutely toxic to the test organisms and likely toxic to the aquatic organisms indigenous to the Site. The magnitude of the toxicity indicates that a release of the sediment and/or water from these ponds would result in environmental damage. Elutriate prepared from the sediment mimics a catastrophic release from the pregnant or overflow ponds. The results of a toxicity evaluation of elutriate indicate that such a release would result in significant ecological damage. Toxicity evaluations of pH-adjusted matrices also indicate that acute toxicity was not the result of acidic

conditions alone, but that other factors related to conductivity and hardness (i.e., metal concentrations) contribute to toxicity.

18. At least one of the transformers on-site was confirmed to contain PCB contaminated oil; the other transformers probably also contain PCBs. The warehouse floors and walls, as well as the transformers, are contaminated with PCBs. In humans, exposure to PCBs has been associated with chloracne, impairment of liver function, a variety of neurobehavioral symptoms, menstrual disorders, minor birth abnormalities, and an increased incidence of cancer. PCBs are bioaccumulated and can be biomagnified. Their toxicity increases, therefore, with length of exposure and position of the exposed species on the food chain. Three primary ways in which PCBs can affect terrestrial wildlife are by causing outright mortality, adversely affecting reproduction, and changing behavior.

19. Direct contact with the highly corrosive waste in the rusted steel tank on the south side of the Site could be expected to cause irritation of skin, mucous membranes, eyes, and throat. Contact with the corrosive waste could cause severe or permanent tissue damage, particularly since the corrosive waste will react with moisture in the mucous membranes to produce heat and attack living tissue. Since access to the steel tank is unrestricted, any trespasser may come in direct contact with this corrosive material.

20. Wildlife in adjacent habitats may be exposed to on-site contamination either through direct contact with contaminated

soil, standing water, and sediments, or indirectly through consumption of organisms (algae, aquatic insects, or animals) feeding in the area. Acidic pH in the ponds poses a significant threat to wildlife in the area, and acidic runoff from the ponds may enter downstream wetlands during storm events, causing severe ecological stress in these areas.

21. The U.S. Department of Interior Fish and Wildlife Service (USFWLS) conducted a field review of the Site on February 10, 1993. USFWLS listed the following endangered and threatened species as potentially impacted at this Site: Virgin River Chub; Woundfin Minnow; Desert Tortoise; Peregrine Falcon; Relict Leopard Frog; and Virgin Thistle.

22. On December 7, 1994, EPA signed an Action Memorandum authorizing a removal action to eliminate the threat to the public health, welfare, and the environment posed by the releases and conditions at the Site. The removal action requires: shaping of the heap leach pile, covering the pile with a geosynthetic membrane, and placing capping material on the pile; removing, treating, and disposing of substances in the buried 5-gallon containers and the tanks in accordance with the requirements of the Resource Conservation and Recovery Act; and, removing and disposing of PCB transformers and contaminated concrete and debris in accordance with the Toxic Substances Control Act.

Attempts to Obtain Access

23. Initial sampling activities and investigations at the Site were conducted by EPA and its contractors, the Bureau of Land Management (BLM), and the State of Utah pursuant to verbal permission for access granted by Mr. Jerry Glazier, President of 5M, Incorporated. These activities occurred between July 1990, and June 1993.

24. On June 10, 1993, EPA sent a letter to Mr. Jerry Glazier, President, requesting that 5M, Inc., grant access to the Site by signing an Agreement for Access. Mr. Glazier did not sign and return the Agreement for Access.

25. From July 1993, until January 1995, 5M, Inc., continued to allow access to the Site by giving verbal permission each time EPA and its contractors, BLM, and the State of Utah, wished to conduct Site visits and sampling.

26. During a telephone conversation on February 1, 1995, EPA requested that 5M, Inc., grant access to the Site for the purpose of conducting the removal action by signing an Agreement for Access. Mr. Glazier, President, 5M, Inc., agreed to reconsider the matter, and a copy of the Agreement for Access was sent to him via facsimile transmission. Mr. Glazier did not sign and return the Agreement.

27. During a telephone conversation on February 13, 1995, EPA again requested that 5M, Inc., grant access to the Site for the purpose of conducting the removal action by signing an

Agreement for Access. Mr. Glazier, President, 5M, Inc., refused to sign the Agreement for Access.

28. On February 28, 1995, EPA transmitted to 5M, Inc., an Administrative Order on Consent (AOC) which set forth EPA's preferred method and timing for conducting a removal action at the Site and which offered 5M, Inc., the opportunity to conduct the removal action with EPA's oversight. The AOC also sought to secure access to the Site for EPA and the State of Utah officials. The transmittal letter offered 5M, Inc., the opportunity to meet with EPA and discuss the proposed removal action and the terms of the AOC.

29. On March 14, 1995, Mr. Glazier, President, 5M, Inc., responded to EPA's proposed AOC. Mr. Glazier stated that the AOC was unacceptable to him and indicated that any attempt by EPA to initiate cleanup activities on his property would be viewed as trespassing.

30. During a telephone conversation on March 15, 1995, EPA again requested that 5M, Inc., grant access to the Site for the purpose of conducting the removal action. Mr. Glazier said that he was unwilling to make the statement that EPA is denied access for the purpose of conducting a removal action. However, he also said that he viewed EPA's proposed removal action and access of his property to be a violation of the Constitution and a taking of his property. He requested a meeting with EPA to further discuss the proposed removal action.

31. On April 20, 1995, EPA; Utah Department of Environmental Quality; Utah Division of Oil, Gas, and Mining; U.S. Bureau of Land Management; and U.S. Bureau of Reclamation met via conference call with 5M, Inc., and Mr. Glazier. Parties discussed both the AOC, which, 5M maintained, was unacceptable, and whether 5M would grant access to the site. Mr. Glazier protested EPA's request for access. EPA requested that 5M respond by close of business on April 21, 1995, to EPA's request for access. 5M failed to meet this final deadline.

III. CONCLUSIONS OF LAW

Based upon the above Findings of Fact and the Administrative Record, EPA has made the following Conclusions of Law:

32. The Leeds Silver Reclamation Site is a "facility" as defined by section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

33. 5M, Incorporated, is a "person" as defined by section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

34. Respondent 5M, Incorporated, is an "owner" and/or "operator" of the facility, as defined by section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

35. The substances found at the Site, as identified in the Findings of Fact above, include "hazardous substance(s)" as defined by section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

36. EPA has a reasonable basis to believe that the presence of and the past, present, and future migration of hazardous substances at or from the Site constitute an actual and/or

threatened "release" of hazardous substances into the environment, as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

37. Access is required for the purpose of determining the need for response and for conducting a response pursuant to section 104(e) of CERCLA, 42 U.S.C. § 9604(e).

IV. DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set forth above, and the Administrative Record, EPA has determined that:

38. The 5M, Incorporated, property located in Washington County, Utah, constitutes a vessel, facility, establishment, or other place or property where hazardous substances or pollutants or contaminants may be or may have been generated, stored, treated, disposed of or transported from.

39. The 5M, Incorporated, property located in Washington County, Utah, constitutes a vessel, facility, establishment, or other place or property from which or to which a hazardous substance or pollutant or contaminant has been or may have been released.

40. The 5M, Incorporated, property located in Washington County, Utah, constitutes a vessel, facility, establishment, or other place or property where entry is needed to determine the need for response or the appropriate response or to effectuate a response action.

41. 5M, Incorporated, has not granted EPA access to its facility and has effectively denied EPA access.

V. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law, and Determinations, and pursuant to the authority of Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), Respondent 5M, Incorporated, is hereby ordered to perform the following:

42. Comply with EPA's request for access for its authorized officers, employees, or representatives, including both the Utah Department of Health, its authorized officers, employees, or representatives, and Washington County, its authorized officers, employees, or representatives, to the property located in Washington County, Utah by signing and returning the attached Consent for Access form, or otherwise providing EPA and its representatives access in a manner consistent with CERCLA section 104, 42 U.S.C. § 9604, within ten (10) calendar days of the effective date of this Order.

43. Allow access to EPA and its officers, employees, and representatives, including both the Utah Department of Health, its authorized officers, employees, or representatives, and Washington County, its authorized officers, employees, or representatives as required by section 104(e) or CERCLA, 42 U.S.C. § 9604(e). Such access shall last for approximately two (2) years and be for the purpose of conducting Site inspection activities at the Site, including but not limited to soil sampling, well drilling, groundwater sampling from new and/or

preexisting wells, sludge sampling, surface water and sediment sampling, and land use mapping, and for the conduct of the removal action described in the December 7, 1994, Action Memorandum and any future amendments thereto.

VI. PARTIES BOUND

44. This Administrative Order shall be binding on all employees, agents, successors, and assigns of 5M, Incorporated and any subsequent owner(s)/purchaser(s) of the Site or any portion of the Site.

VII. SERVICE OF PROCESS, AVAILABILITY OF ADMINISTRATIVE RECORD AND OPPORTUNITY TO CONFER

45. This Administrative Order shall be served upon Mr. Jerry Glazier, President, 5M, Incorporated, by facsimile transmission and by certified mail, return receipt requested.

46. The Administrative Record supporting the above findings, conclusions, and determinations and all documents referred to in this Order is available for review between the hours of 8 a.m. and 5 p.m. in the EPA Region VIII office at 999 18th Street, Denver, Colorado, and at the Washington County Public Library, 50 South Main, St. George, Utah.

47. Respondent may request a conference with EPA to discuss this Administrative Order prior to the Order's effective date. At any conference held pursuant to Respondent's request, Respondent may appear by attorney or other representative. Respondent should contact Matthew D. Cohn, Associate Regional Counsel, at (303) 294-7183, to arrange such a conference.

VIII. U.S. GOVERNMENT LIABILITIES

48. The United States, its officers, employees, and representatives, including the Utah Department of Health, its authorized officers, employees, or representatives and Washington County, its authorized officers, employees, or representatives shall not be liable for any injuries or damages to personal property resulting from acts or omissions of the Respondent or its employees, agents, or contractors in carrying out activities conducted pursuant to this Order, nor shall the United States, its officers, employees, and representatives, including the Utah Department of Health, its authorized officers, employees, or representatives be held as a party to any contract entered into by the Respondent or its employees, agents, or contractors in carrying out activities pursuant to this Order.

IX. OTHER CLAIMS

49. Nothing in this Order is intended to release any claims, causes of action, or demands, in law or equity, of any party against any entity not subject to this document for any liability it may have arising out of or relating in any way to the Site.

X. PENALTIES

50. Respondent 5M, Incorporated, is hereby advised that, pursuant to section 104(e) of CERCLA, 42 U.S.C. § 9604(e), if Respondent fails to provide EPA with access within ten (10) calendar days from the effective date of this Order, or otherwise fails to comply with the terms of this Order, it may be subject

to Court-ordered penalties of up to $25,000 per day for each day of noncompliance. Any action taken by Respondent 5M, Incorporated, to deny access to EPA or its authorized officers, employees, or representatives for purposes of conducting a Site inspection, or any attempt to interfere with the removal action of said parties shall be deemed to be a violation of this Administrative Order and constitute noncompliance with this Administrative Order.

XI. EFFECTIVE DATE

51. This Order shall be effective on May 16, 1995.

IT IS SO ORDERED

5/9/95
Date

Robert L. Duprey
Director, Hazardous Waste
Management Division

ATTACHMENT TO ADMINISTRATIVE ORDER CERCLA-VIII-95-14

CONSENT FOR ACCESS TO PROPERTY

I consent to officers, employees, and authorized representatives of the United States Environmental Protection Agency (EPA); officers, employees, and authorized representatives of Utah State agencies; and officers, employees, and authorized representatives of Washington County entering and having continued access to **all real property interests held by 5M, Incorporated, in Sections 1 and 12, Township 41 South, Range 14 West of the Salt Lake Baseline and Meridian, Washington County, Utah.** Access is given for the following purposes:

- the taking of such soil, water, and air samples as may be determined to be necessary;
- the sampling of any solids or liquids stored or disposed of on the property;
- the drilling of holes and installation of monitoring wells and subsurface investigation;
- other actions related to the investigation of surface or subsurface contamination; and,
- for the removal or remediation of contamination.

I realize that these actions by EPA are undertaken pursuant to its response and enforcement responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. section 9601 et seq.

This written permission is given by me in compliance with EPA's Administrative Order Docket Number CERCLA-VIII-95-14.

_____ _____

Mr. Jerry Glazier, President
5M, Incorporated
279 West State Street
P.O. Box 752
Hurricane, UT 84737

Date

SILVER REEF
Mill Site

LEGEND

Exhisting Neoprene Lined Impoundment (Mill-Refinery Building & Storage Pond to be Located Over This Area)

Roads

Powerlines

Ditch

Drawn by: JJ.

AS&R Shaft

Equipment Maintenance Building

(G)

(A) Ore Stockpile (Retained)

formerly Packer Tanks

Water Storage Tanks

First Impoundment Area for Lined & Covered Burial of Tails for EPA Concerns.

(Total Channel Burial Lined Impoundment Potential = 5 Million Tons)

(Initial Production Disposal to Begin on North End of Channel.)

(F)

Parking

(B)

Crushing Jaw-Cone & Hammer

Grinding SAG & Tower Mills

Exist. Landfill

PPTI & Gravity & Heavy Media

Autoclave Pressure Leaching (Closed Circuit)

Filtering & Clarification

(C)

Chemical Storage

Extraction

Precipitation Solvent & Resin Ext.

Electro-Winning

Powerline

UP Mines

Collection Pond for Any spills of solutions in Mill Area

(D)

Solution Storage Pond for Re-use in Mill Circuits

Piping of Ditch for Irrigation to Dry up...

(E) Filtering, Washing & Neutralizing of Tails prior to Lined Burial Impoundment (Exhisting Asphalt Pad) Materials Storage & Lab

Substation

To Main Substation